2021 AFOBMCIS

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AFOB MALAYSIA CHAPTER INTERNATIONAL SYMPOSIUM 2021

Virtual Symposium

Biotechnology towards Sustainable Development Goals (SDGs) and Circular Bioeconomy

22-23 Sep 2021

AFOB-MC International Symposium (AFOBMCIS) is one of the annual events of Asian Federation of Biotechnology Malaysia Chapter (AFOB-MC). The 3rd AFOBMCIS 2021 aims to provide a platform for researchers/scholars/scientists, academia and industries to share knowledge and expertise, sharing ideas and opinions and showcase research outcomes, with the current biotechnologies area under the theme of "Biotechnology towards Sustainable Development Goals (SDGs) and Circular Bioeconomy". Due to the COVID-19 pandemic, the 3rd AFOBMCIS 2021 will be held virtually on the online platform. The AFOBMCIS 2021 organising team hopes this symposium will be a successful event with enthusiastic participation of local and world-wide biotechnologists for the realisation of SDGs and bioeconomy.

Plenary speakers:

PROF. JO SHU CHANG
Chair Professor and Dean of College of Engineering, Tunghai University.
Adjunct Chair Professor of Department of Chemical Engineering, National Cheng Kung University, Taiwan.
President of Taiwan's Society of Biotechnology and Biochemical Engineering (BEST)
Executive committee member of Asia Federation of Biotechnology (AFOB)

Title of talk: Realising circular bioeconomy via a microalgae platform

DR CHRISTIAN PATERMANN
Fellow of the International Society of Horticultural Societies, Louvain.
Member in the Georgofili Academy, Florence.
Member of the first Research and Technology Council "BioEconomy" of the Federal German Government.

Title of talk: Bioeconomy -fit for the next decade - hype or reality?

Technical sessions

1. Agricultural and Food Biotechnology
2. Applied Microbiology
3. Biopharmaceutical and Medical Biotechnology
4. Biocatalysis and Protein Engineering
5. Bioprocess and Bioseparation Engineering
6. Bioenergy and Biorefinery
7. Environmental Biotechnology
8. Marine Biotechnology
9. Nanobiotechnology, Biosensors and Biochips
10. Systems and Synthetic Biotechnology
11. Tissue Engineering and Biomaterials
12. Bioindustry Promotion and Bioeducation

Registration Fee

	Early bird ~~30th June 2021~~ 31st July 2021	Standard ~~31st July 2021~~ 31st August 2021	Late 31st August 2021 10th September 2021
Malaysian (Regular)	RM300	RM350	RM400
Malaysian (Student)	RM150	RM175	RM200
International (Regular)	USD100	USD125	USD150
International (Student)	USD50	USD75	USD100

*10% off for AFOB members

AWARDS FOR

Scan here for registration

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Co-organised by: Universiti Malaysia Pahang, AFOB Malaysia Chapter

In collaboration with: UPM, Universiti Teknologi MARA, UMS Universiti Malaysia Sabah, UNIMAS, UniKL, International Islamic University Malaysia, University of Malaya, UCSI University, Universiti Malaysia Perlis, MPOB, MARDI

Contact us for details: afobmcis@gmail.com

Day 1 — 22nd September 2021

09.00 – 10.00	Plenary Speaker 1 **Prof Dr Jo Shu Chang** **Tunghai University, Taiwan** Realizing Circular Bioeconomy via a Microalgae Platform Chairperson **Prof. Dr. Charles Santhanaraju Vairappan** **Universiti Malaysia Sabah, Malaysia** (Webex Link 1.1)		
10.00 – 10.30	Morning Tea Break and Poster Session 1 (Webex Link 1.1)		
10.30 – 12.30	Opening Ceremony and MOU Signing Ceremony between AFOBMC and BEST Chairperson **Assoc Prof Ts Dr Mohamad Faizal Ibrahim** **Universiti Putra Malaysia, Malaysia** (Webex Link 1.1)		
12.30 – 14.00	Lunch Break and Poster Session 2 (Webex Link 1.1)		
14.00 – 17.20 Technical Sessions	**Technical Session 1** *Agricultural and Food Biotechnology*	**Technical Session 2** *Environmental Biotechnology* *Tissue Engineering and Biomaterials*	**Technical Session 3** *Biopharmaceutical and Medical Biotechnology,* *Systems and Synthetic Biotechnology* *Biocatalysis and Protein Engineering*
	Chairperson **Assoc Prof Dr Phang Lai Yee** **Universiti Putra Malaysia, Malaysia** (Webex Link 1.2)	Chairperson **Adjunct Prof Datin Dr Zaharah Ibrahim** **Universiti Teknologi Malaysia, Malaysia** (Webex Link 1.3)	Chairperson **Dr Mohd Helmi Sani** **Universiti Teknologi Malaysia, Malaysia** (Webex Link 1.4)
	Keynote 1.1 14.00 -14.30 **Assoc Prof Dr Sehanat Prasongsuk** **Chulalongkorn University, Thailand** Biotechnological Applications of The Tropical Black Yeast *Aureobasidium* spp.	Keynote 2.1(Recorded) 14.00-14.30 **Prof Dr Thomas Curtis** **University of Newcastle, United Kingdom** Engineering Real Open Biological Systems	Keynote 3.1 14.00-14.30 **Prof Dr Wong Tin Wui** **Universiti Teknologi MARA, Malaysia** The Significance of Pharmaceutical Technology in Precision Medicine
	Invited 1.1 14.30 - 14.50 **Assoc Prof Dr Hsiu-Wen Chien** **National Kaohsiung University of Science and Technology, Taiwan** Reuse of Spent Coffee Ground: Be as Antimicrobial Materials	Keynote 2.2 14.30-15.00 **Assoc Prof Ts Dr Cheng Ee Meng** **Universiti Malaysia Perlis, Malaysia** "When Dielectric Meet Scaffold..."	Keynote 3.2 14.30 -15.00 **Prof Ir Ts Dr Pau-Loke Show** **University of Nottingham Malaysia, Malaysia** A New Microalgae Biorefinery Technology for Circular Bioeconomy: Internet of Things Liquid Biphasic System
	Invited 1.2 14.50-15.10 **Dr Wan Abd Al-Qadr Imad Wan Mokhtar** **University of Malaya, Malaysia** Bioreactor Biomass as Fish Superfood	Invited 2.1 15.00-15.20 **Asst Prof Dr Sompong O-Thong** **Thaksin University, Thailand** CO_2 in Acetic Acids Bioconversion Process for Biogas Upgrading by *Clostridium thailandense*	Keynote 3.3 15.00-15.30 **Prof Dr Kenji Sakai** **Kyushu University, Japan** Mysterious Ecology and Physiology of Extreme Thermophile Found in Hyperthermal Compost of Municipal Wastewater Sludge in Kagoshima

	Oral 1.1 15.10-15.25 **Dr Nur Nasulhah Kasim** **Universiti Teknologi MARA, Malaysia** Enhancing Growth Performance of Red Spinach (*Amaranthus tricolor*) *via* Zero–energy Soilless Agriculture (ZESA)	Invited 2.2 15.20-15.40 **Dr Mohd Fauzi Mh Busra** **Universiti Kebangsaan Malaysia, Malaysia** Insight of Multifunctional Natural–based Biomaterials Strategies for Skin Tissue Engineering: Current Update	Invited 3.1 15.30-15.50 **Dr Nor Azlan Nor Muhammad** **Universiti Kebangsaan Malaysia, Malaysia** Insights into The Developmental Pathways of Oil Palm Pest *Matisa plana*
	Oral 1.2 15.25-15.40 **Nur Hailini Zainol Hilmi** **Malaysian Palm Oil Board, Malaysia** Volatile Organic Compounds (VOCs) for Detection of *Ganoderma boninense* in Oil Palm	Invited 2.3 15.40-16.00 **Assoc Prof Ts Dr Nashrul Fadzli Mohd Nasir** **Universiti Malaysia Perlis, Malaysia** Antimicrobial Characteristics of Various Malaysian Seashells Based Hydroxyapatite (HA) Concentrations	Invited 3.2 15.50-16.10 **Asst Prof Dr Yang Wei,** **National Taipei University of Technology, Taiwan** Mussel Proteins-Inspired Adhesives
	Oral 1.3 15.40-15.55 **Dr Koh Soo Peng** **Malaysia Agriculture Research and Development Institute, Malaysia** Healthier Gut Microbiota and Its Protection Role of Functional Papaya Beverage Against Streptozotocin–Induced Diabetic Sprague Dawley Rats	Invited 2.4 16.00 -16.20 **Assoc Prof Dr Shaza Eva Mohamad** **Universiti Teknologi Malaysia, Malaysia** Phycoremediation of Palm Oil Milll Effluent (POME) by Microalgae	Invited 3.3 16.10-16.30 **Dr Ahmad Bazli Ramzi** **Universiti Kebangsaan Malaysia, Malaysia** Designer Enzyme for Metabolic Pathway Engineering in Bacterial Chassis
	Oral 1.4 15.55-16.10 **Assoc Prof Ts Dr Farhan Mohd Said** **Universiti Malaysia Pahang, Malaysia** Box–Behnken Design for Optimizing Production of *Monascus purpureus* Pigments in Mechanically Mixed Drum Bioreactor	Oral 2.1 16.20 -16.35 **Dr Muhammad Fauzi Daud** **Universiti Kuala Lumpur, Malaysia** Investigating Schwann Cell Adhesion on Graphene/Polycaprolactone Composite Biomaterial for Peripheral Nerve Repair Application	Oral 3.1 16.30-16.45 **Assoc Prof Dr Norhayati Ramli** **Universiti Putra Malaysia, Malaysia** Bacterial Indicators for Biomonitoring The Palm Oil Mill Effluent Pollution in Rivers
	Oral 1.5 16.10-16.25 **Dr Azman Abd Samad** **Universiti Teknologi Malaysia, Malaysia** Evaluation of Silver Nanoparticles Synthesis Using *in vitro Persicaria odorata* Extracts	Oral 2.2 16.35-16.50 **Dr Musliana Mustaffa** **International Islamic University of Malaysia, Malaysia** The Effectiveness of Obturation with GuttaFlow Bioseal in Single Rooted Mandibular Premolars: A Scanning Electron Microscopy Study	Oral 3.2 16.45-17.00 **Dr Aisyah Salihah Kamarozaman** **Universiti Teknologi MARA, Malaysia** Isolation of Three Flavonoids, A Coumarin and A Phenolic Acid from *Macaranga hypoleuca* (Rchb.f. & zoll.) Müll.arg
	Oral 1.6 16.25-16.40 **Ts Dr Sharifah Soplah Syed Abdullah** **Universiti Kuala Lumpur, Malaysia** Conversion of Nata de Coco into Microfibrillated Cellulose by Physical and Chemical Methods	Oral 2.3 16.50-17.05 **Dr Rozaimi Abu Samah** **Universiti Malaysia Pahang** Application of Ionic Copper Concentrate Natural Mineral Base (INCZM) to Promote Plant Growth of Pepper (*Capsicum annuum*)	Oral 3.3 17.00-17.15 **Dr Zainatul `Asyiqin Samsu** **Universiti Kuala Lumpur, Malaysia** Metabolic Pathway of Rhamnolipid Biosynthesis by a Non–pathogenic *Burkholderia thailandensis* E264: The Metabolomics Approach
		Oral 2.4 17.05-17.20 **Mr Pratheep Sandrasaigaran** **Manipal International University, Malaysia** Multi–drug Resistant *Salmonella enterica* subsp. *enterica* Serovars Enteritidis and Typhimurium in Street Foods	
17.20 – 17.25	Afternoon Tea Break (Webex Link 1.1)		

17.25 – 17.40 3 Mins Poster Presentation Sessions	**3 Mins Poster Presentation Session 1** Chairperson **Assoc Prof Ts Dr Farhan Mohd Said** **Universiti Malaysia Pahang** (Webex Link 1.2)	**3 Mins Poster Presentation Session 2** Chairperson **Assoc Prof Dr Grrace Ng Hui Suan** **UCSI University, Malaysia** (Webex Link 1.3)	**3 Mins Poster Presentation Session 3** Chairperson **Dr Khanom Simarani** **Universiti of Malaya, Malaysia** (Webex Link 1.4)
17.25-17.28	3MPS 1.1 **Khairun Najibah Mohd Said** **Universiti Malaysia Sarawak, Malaysia** Solid State Fermentation (SSF) of Lignocellulosic Agricultural Waste by *Marasmius* sp. for Laccase Production	3MPS 2.1 **Adriana Connie Lee** **Universiti Putra Malaysia, Malaysia** Bacterial Nanocellulose Using Pineapple Peel as Substrate	3MPS 3.1 **Harika Chittella** **Taylor's University Malaysia, Malaysia** Biodegradation of Natural Glove Rubber Using Gram–Negative Bacteria: *Klebsiella aerogenes*
17.28 -17.31	3MPS 1.2 **Dr Zahidah Ayob** **Malaysian Palm Oil Board, Malaysia** Prokaryotic Diversity of Tropical Peat Swamp Forest Determined Using 16S rRNA Metagenome Sequencing	3MPS 2.2 **Nurul Sabrena Hanafi** **Universiti Putra Malaysia, Malaysia** Effect of Used Cooking Oil as Stabliser of Biolubricant Produced from *Calophyllum inophyllum* L. (Nyamplung) Seed Oil	3MPS 3.2 **Nadhirah Salleh** **Universiti Putra Malaysia, malaysia** Isolation and Characterization of Phosphofungi as a Potential Biofertilizer
17.31 -17.34	3MPS 1.3 **Chu Pei Hsia** **Universiti Putra Malaysia, Malaysia** Amino Acids Using Starch Extracted from Pineapple (*Ananas comosus*) Plant Stem	3MPS 2.3 **Nurul Adela Bukhari** **Universiti Kebangsaan Malaysia, Malaysia** C4–dicarboxylic Acid Production Utilising Lignocellulosic Oil Palm Trunk Bagasse as Feedstock	3MPS 3.3 **Dr Nahrul Hayawin Zainal** **Malaysian Palm Oil Board, Malaysia** Activated Carbon for Pollutant and Color Removal of Palm Oil Mill Effluent (POME): Comparison Between Palm Kernel Shell and Coconut Shell

Day 2 — 23rd September 2021

08.30 – 09.30	Plenary Speaker 2 **Dr. Christian Patermann** **European Federation of Biotechnology, Germany** Bioeconomy–Fit for The Next Decade –Hype or Reality? Chairperson **Prof Dr Awang Ahmad Sallehin Awang Husaini** **Universiti Malaysia Sarawak, Malaysia** (Webex Link 2.1)		
09.30 - 10.00	Tea break and Poster Session 3 (Webex Link 2.1)		
10.00 - 12.30 Technical Sessions	**Technical Session 4** *Applied Microbiology* *Bioindustry Promotion and Bioeducation* Chairperson **Dr Adibah Yahya** **Universiti Teknologi Malaysia, Malaysia** (Webex Link 2.2)	**Technical Session 5** *Bioprocess and Bioseparation Engineering* *Bioenergy and Biorefinery* Chairperson **Dr Lisa Ong Gaik Ai** (Webex Link 2.3)	**Technical Session 6** *Marine Biotechnology* *Nanobiotechnology, Biosensors and Biochip* Chairperson **Assoc Prof Dr Juferi Idris** **Universiti Teknologi MARA, Malaysia** (Webex Link 2.4)
	Keynote 4.1 (Recorded) 10.00 -10.30 **Prof Dr David Barrie Johnson** **Bangor University, United Kingdom** Direct and Indirect Redox Reactions Catalysed by Acidophilic Prokaryotes and How These Mediate Metal Recovery	Keynote 5.1 10.00-10.30 **Prof Dr-Ing Misri Gozan** **Universitas Indonesia, Indonesia** Production and Purification of Furfural from Oil Palm Empty Fruit Bunch	Keynote 6.1 10.00-10.30 **Prof Dr Charles Santhanaraju Vairappan** **Universiti Malaysia Sabah, Malaysia** Anti–inflammation, Anti–cancer Mechanism and Microarray Gene Expression of Soft Coral Derived Secondary Metabolites

	Keynote 4.2 10.30-11.00 **Assoc Prof Dr Midhat Nabil Ahmad Salimi** **Universiti Malaysia Perlis, Malaysia** Biotechnology Industry in Malaysia	Keynote 5.2 10.30 - 11,00 **Prof Dr Akihiko Kondo** **Kobe University, Japan** Development of Biofoundry Platform for Rapid Construction of Microbial Cell Factories for Production of Chemicals and Fuels from Bioresources	Keynote 6.2 10.30-11.00 **Prof Dr Chiaki Ogino** **Kobe University, Japan** Cancer Therapy by The Combination of Nanoparticle and X-ray Irradiation	
	Invited 4.1 11.00-11.20 **Dr Heera Rajandas** **AIMST University, Malaysia** Role of Sequencing Technology in Addressing Sustainable Development Goals	Invited 5.1 11.00 -11.20 **Prof Dr Chi-Wei Lan** **Yuan Ze University, Taiwan** The Application of Electro Fermentation on Improving Production of Echineone by Marine Microorganism	Invited 6.1 11.00-11.20 **Ts Dr Nor Azizah Parmin** **Universiti Malaysia Perlis, Malaysia** Nanobiotechnology Towards Nano-Diagnostic for Screening of Infectious Diseases	
	Invited 4.2 11.20-11.40 **Dr Khanom Simarani** **Universiti Malaya, Malaysia** Novel Natural Compound Synthesis by *Nigrospora sphaerica* for Breast Cancer (*NONACOS–BC*)	Invited 5.2 11.20-11.40 **Asst Prof Dr Sureewan Sittijunda** **Mahidol University, Thailand** Valorization of Crude Glycerol Derived from The Biodiesel Production Process for Bioenergy and Biochemical Production	Invited 6.2 11.20-11.40 **Dr Takashi Kamada** **Shizuoka Institute of Science and Technology, Japan** Biological Potentials of Halogenated Secondary Metabolites from Japanese Marine Red Algae *Laurencia* spp.	
	Oral 4.1 11.40-11.55 **Asst Prof Dr Lam Ming Quan** **Universiti Tunku Abdul Rahman, Malaysia** Potential of Halophilic *Meridianimaribacter* sp. CL38 as a Microplastic Degrading Enzymes Producer from Genomic Perspective	Invited 5.3 11.40 -12.00 **Asst Prof Dr Steven Lim** **Universiti Tunku Abdul Rahman, Malaysia** Organosolv Pretreatment for The Production of Various Bioproducts Towards Sustainable Biorefinery Bioprocessing	Invited 6.3 11.40-12.00 **Assoc Prof Ts ChM Dr Mohd Sani Sarjadi** **Universiti Malaysia Sabah, Malaysia** A Review of Antioxidant Potential from Seaweed – Extraction, Characterization, Benefits and Application	
		Invited 5.4 12.00-12.20 **Assoc Prof Dr Nor'Aini Abdul Rahman** **Universiti Putra Malaysia, Malaysia** Phosphate Microbial Solubilization: Higher P Use Efficiency and Crop Productivity	Oral 6.1 12.00-12.15 **Adjunct Prof Datin Dr Zaharah Ibrahim** **Universiti Teknologi Malaysia Malaysia** Characterisation of Locally Isolated Bionanocellulose Producing Bacteria	
12.30 - 14.00	Lunch Break (Webex Link 2.1)			
14.00 – 16.50 Young Researchers Sessions	**Young Researcher Session 1** Chairperson **Dr Rozaimi Abu Samah** **Universiti Malaysia Pahang, Malaysia** (Webex Link 2.2)	**Young Researcher Session 2** Chairperson **Assoc Prof Dr Norhayati Ramli** **Universiti Putra Malaysia, Malaysia** (Webex Link 2.3)	**Young Researcher Session 3** Chairperson **Dr Nahrul Hayawin Zainal** **Malaysian Palm Oil Board, Malaysia** (Webex Link 2.4)	**Young Researcher Session 4** Chairperson **Assoc Prof Ts Dr Mior Ahmad Khushairi Mohd Zahari** **Universiti Malaysia Pahang, Malaysia** (Webex Link 2.5)
14.00-14.20	Speaker YR 1.1 **Isna Athirah Othman** **Universiti Teknologi MARA, Malaysia** Investigation of Flavonoids from *Bouea macrophylla* Griff	Speaker YR 2.1 **Nur Amanina Johari** **Universiti Teknologi Malaysia, Malaysia** Preliminary Evaluation on *in vitro* and *in silico* Study of *Andrographis paniculata* on Fatty Acid Synthase Expression in Breast Cancer	Speaker YR 3.1 **Ajibola Olaide Olawunmi** **Universiti Malaysia Sarawak, Malaysia** Production and Optimization of Laccase by *Marasmius cladohpyllus* UMAS MS8 Using Agro–industrial Waste as Substrate	Speaker YR 4.1 **Noor Syaffinaz Noor Mohamad Zin** **Universiti Teknologi MARA, Malaysia** A 96 Well Plate–Bbased Method for Monitoring α–Amylase Activity Using Miniaturises 3,5–Dinitrosalicylic Acid (DNSA) Colorimetric Method

14.20 - 14.35	Speaker YR 1.2 **Nur Ain Sabrina Azmi** **Universiti Teknologi MARA, Malaysia**, Development of Functional Beverages from Blends of *Ficus deltoidea* Leaves and Brown Rice Powder	Speaker YR 2.2 **Nur Fatin Najihah Mat Husin** **Universiti Teknologi MARA, Malaysia** Antibacterial and Antibiofilm Activity of *Coriandrum sativum* Essential Oil Against *Streptococcus* mutans and *Staphylococcus aureus*	Speaker YR 3.2 **Mohd Idham Hakimi Razali** **Universiti Putra Malaysia, Malaysia** Biochar from Oil Palm Trunk as Bioadsorbent for Polishing and Purification Applications	Speaker YR 4.2 **Nurul Haziqah Alias** **Universiti Putra Malaysia, Malaysia** Sequential–Substrate Feeding and Sequential–Enzymes Loading of Enzymatic Saccharification to Enhance Fermentable Sugar Production from Sago Hampas
14.35 - 14.50	Speaker YR 1.3 **Clara Novia** **Institut Teknologi Bandung, Indonesia** Effect of Concentration of *Nicotiana tabacum* Extract on Protein Content and Growth of Soybean (*Glyncine max* L.) Grobogan, Devon, and Wilis Varieties	Speaker YR 2.3 **Umi Nabila Mat Yusuf** **Universiti Teknologi MARA, Malaysia** *Oryzias latipes* (Japanese Medaka) as Genetic Model to Study Causative Genes of Epilepsy Disease	Speaker YR 3.3 **Nurhani Fatihah Jariah** **Universiti Putra Malaysia, Malaysia** Biodiesel Production from Grease Trap Waste and Its Purification Using Bioadsorbents Derived from Biomass	Speaker YR 4.3 **Md. Ebrahim Khalil** **South Asian University, India** Biohydrogen Production from Crude Glycerol by *Clostridium* Strain G117
14.50 - 15.05	Speaker YR 1.4 **Muhammad Yazid Abd Halim** **Universiti Teknologi MARA, Malaysia** Optimization of Soft Cheese Production Conditions Using Papain as Plant-based Enzyme by Response Surface Methodology (RSM)	Speaker YR 2.4 **Nur Azreen Saidon** **Universiti Teknologi Malaysia, Malaysia** DNA Barcoding of Nuclear Ribosomal ITS1, ITS2 and *rbcL* and Phylogenetic Analysis for *Nepenthes* Originated from Endau–Rompin National Park, Johor	Speaker YR 3.4 **Nurul Ain Abu Bakar** **Universiti Putra Malaysia, Malaysia** Preliminary Study of Paddy Processing Waste as Potential Feedstock for Glucose Production	Speaker YR 4.4 **Nurul Aida Qarina Mohd Razali** **Universiti Malaysia Sarawak, Malaysia** Antioxidant Capacity of Fermented Traditionally Processed Sago with Endophytic Fungi
15.05--15.20	Speaker YR 1.5 **Tan Jiunn Luh** **University of South Bohemia, Czech Republic** A Preliminary Study on The Efficacy of Spinetoram Against Melon Thrips, *Thrips palmi*, in Malaysia	Speaker YR 2.5 **Fitriyatul Aiman Mohd Badran** **Universiti Kuala Lumpur, Malaysia** Study on Antimicrobial Peptides from *Punica granatum* Peel Extract: Characterization and Gene Expression	Speaker YR 3.5 **Fatini Mat Arisah** **Universiti Putra Malaysia, Malaysia** Chromium Hexavalent Resistance in *Pseudomonas aeruginosa* RW9 as a Potential Candidate for Bioremediation	Speaker YR 4.5 **Siti Nur Nadhirah Said Azmi** **Universiti Kuala Lumpur, Malaysia** Effect of Nitrogen Sources Supplementation on Oil Palm Frond Juice for Bacterial Cellulose Production
15.20-15.35	Speaker YR 1.6 **Aliyu Dantani Abdullahi** **Chiang Mai University, Thailand** Phenolic Contents and Antioxidant Activities of Miang Extracts Fermented *via* Filamentous and Non–filamentous Fungi–based Processes	Speaker YR 2.6 **Chen Sye Jinn** **Universiti Teknologi Malaysia, Malaysia** Lignocellulose Biomass Degrading Potential of Genus Glutamicibacter Deciphering Its Ability from Genomic Aspect	Speaker YR 3.6 **Nurshafika Abd Khalid** **Universiti Teknologi Malaysia, Malaysia** Microbial Community of Sludge Palm Oil Mill Effluent as Inoculum for Compost Production	Speaker YR 4,6 **Nur Adila Muradi** **Universiti Malaysia Sarawak, Malaysia** Improvement of Very High Gravity Bioethanol Fermentability of Sago Hampas Hydrolysate Using Recycled Yeast Cells
15.35-15.50	Speaker YR 1.7 **Jasmin Jaraee** **Universiti Malaysia Sarawak, Malaysia** Physiochemical and Microbiological Changes of *Nypa fruticans* Sap Collected in Sarawak, Malaysia	Speaker YR 2.7 **Siti Suhailah Sharuddin** **Universiti Putra Malaysia, Malaysia** Fundamentals on The Bacterial Biomarker Genes as Bioindicators of Palm Oil Mill Effluent Pollution	Speaker YR 3.7 **Imran Ahmad** **Universiti Teknologi Malaysia, Malaysia** Progressive Algal Biotechnology: A Sustainable and Viable Approach Towards Bioeconomy	Speaker YR 4.7 **Aniket Bhattacharyya** **South Asian University, India** High–level of Recombinant Fungal Laccase Production for Industrial Applications
15.50 - 16.05	Speaker YR 1.8 **Muhammad Arif Darmawan** **Universitas Indonesia, Indonesia** Reduction of The Acidity and Peroxide numbers of Tengkawang Butter (*Shorea stenoptera*) Using Thermal and Acid Activated Bentonites	Speaker YR 2.8 **Siti Fatimah Suboh** **Universiti Teknologi MARA, Malaysia** Antimicrobial Activity of Green Biosynthesis Iron Oxide Nanoparticles Mediated *S. crispus* Leaves Aqueous Extract	Speaker YR 3.8 **Nova Rachmadona** **Kobe University, Japan** An Integrative Bioconversion Process for Biodiesel Production Utilizing Waste from The Palm Oil Industry	Speaker YR 4.8 **Maheswary Thambirajoo** **Universiti Kebangsaan Malaysia, Malaysia** Bilayered Woven Cellulose–Collagen Bioscaffold as Acellular Skin Substitute for Future Use in Diabetic Ulcer Treatment

16.05-16.20	Speaker YR 1.9 **Ayuni Amalina Abu Bakar** **Universiti Teknologi MARA, Malaysia** Impact of Irradiation on The Bone Morphometry of Femur in an Osteoporosis Induced Mouse Model	Speaker YR 2.9 **Izzati Sabri** **Universiti Putra Malaysia, Malaysia** Draft Genome Sequence Revealed Genes Related to Phenol Degradation in *Kosakonia oryzae* Strain S10	Speaker YR 3.9 **Aparna Ganapathy Vilasam Sreekala** **Deemed University, India** Ureolytic Biomineralization in Coastal Regions Inhibited by Pesticide Pollution: A Computational Approach	Speaker YR 4.9 **Punnita Pamueangmun** **Chiang Mai University, Thailand** Evaluation of *Bacillus coagulans* MA42 for L–Lactic Acid Production from Lignocellulose Using Consolidated Bioprocessing Fermentation
16.20 - 16.35	Speaker YR 1.10 **Nor Syafira Mohd Masri** **Universiti Kebangsaan Malaysia, Malaysia** Gelatin-PVA Bioinks for Chronic Wound Healing by Using 3D-Bioprinting	Speaker YR 2.10 **Nur Kamilah Mohd Nordin** **Universiti Teknologi Malaysia, Malaysia** Synthesis of Silver Nanoparticles Using Ethanolic Shoot Extract of *in vitro Persicaria odorata* and Its Antioxidant Activity	Speaker YR 3.10 **Muhammad Fakhri Zainuddin** **Universiti Putra Malaysia, Malaysia** Production of Single Cell Oil as Potential Biodiesel by *Yarrowia lipolytica* JCM 2320 Using Detoxified Desiccated Coconut Residue Hydrolysate	Speaker YR 4.10 **Daniel Alejandro Alfaro Sayes** **Kobe University, Japan** Immobilization for The Enhancement of Biomass and Lipid Productivity of *Chlorella sorokiniana*
16.35 -16.50	Speaker YR 1.11 **Puteri Azira Azmin** **Universiti Malaysia Sarawak, Malaysia** A Comparative Study of Nipa Palm Sugar a.k.a *Gula Apong* in Selected Area of Sarawak	Speaker YR 2.11 **Nur Zawani Mazlan** **Universiti Kebangsaan Malaysia, Malaysia** The Effect of Injectable Hybrid Gelastin Hydrogel for Wound Healing: Epigallocatechin Gallate	Speaker YR 3.11 **Rabindra Kumar Mahato** **South Asian University, India** Biobutanol and Biohydrogen Production from Waste Potatoes Using Novel Saccharolytic α–Amylase from *Bacillus* Strain	Speaker YR 4.11 **Mr Raghuvandhanan Kumarasamy Sivasamy** **Kumaraguru College of Technology, India** Animal Feed Preparation Using Probiotics and Organic Waste Incorporated with Selected Biocontrol Medicinal Plants
17.00 - 18.00	Closing Ceremony Chairperson **Assoc Prof Ts Dr Mohamad Faizal Ibrahim** **Universiti Putra Malaysia, Malaysia** (Webex Link 2.6)			

22nd September 2021 1000 – 1030 Poster Session	**Poster Sessions 1** **(PS 1)** *Agricultural and Food Biotechnology* Chairperson **Ts Dr Sharifah Soplah Syed Abdullah** **Universiti Kuala Lumpur, Malaysia** (Webex Link 1.1)
PS 1.1	**Assoc Prof Ts Dr Mohamad Faizal Ibrahim** **Universiti Putra Malaysia, Malaysia** Formulation of Fortified Media from Oil Palm Biomass for The Enhancement of Bioactive Compounds in Pegaga (*Centella asiatica* (L.) Urban)
PS 1.2	**Dr Jessica Jeyanthi James Antony** **Universiti Putra Malaysia, Malaysia** Establishment of *in vitro* Micropropagation from Meristem Explants *Musa campestris* var. sarawakensis
PS 1.3	**Dr Maizatul Suriza Mohamed** **Malaysian Palm Oil Board, Malaysia** Molecular Diagnostic Tools for Mitigation of Tropical Plant Pathogens: Oil Palm
PS 1.4	**Rosniza Kassim** **Malaysia Agriculture Research and Development Institute, Malaysia** Effects of Different LED–light Quality on Growth, Chlorophyll Concentration and Anthocyanin Content of Green Dwarf Pakchoi *(Brassica rapa chineensis*)
PS 1.5	**Wan Rozita Wan Engah** **Malaysia Agricultural Research and Development Institute, Malaysia** Yield and Its Attribute Performance and Heritability Estimation in Selected F1 Bitter Gourd Population

PS 1.6	**Farahzety Abdul Mutalib** **University of Nottingham Malaysia, Malaysia** Influence of Stem Cutting Diameter, Growth Regulators and Growing Media on Growth Performance of Moringa
PS 1.7	**Irene Lah** **Universiti Teknologi MARA, Malaysia** Development of Loop–mediated Isothermal Amplification (LAMP) for Detection of Banana Blood Disease Bacterium Isolates in Malaysia
PS 1.8	**Isfaniza Barji** **Universiti Malaysia Sarawak, Malaysia** Dilute Sulphuric Acid Hydrolysis of Destarch Sago Hampas for Xylitol Fermentation
PS 1.9	**Anisah Jamaluddin** **Universiti Kebangsaan Malaysia, Malaysia** Down–regulation of Tyrosinase Expression by Fermented Broken Rice, Brewers' Rice and Rice Bran in Highly Pigmented Human Melanoma, MNT1
PS 1.10	**Tan Ying Ju** **Universiti Putra Malaysia, Malaysia** Mapping Milk Microbiota from Healthy, Sub–clinical and Clinical Mastitis of Jersey Fresian Cattle in Malaysia
PS 1.11	**Norhazniza binti Aziz** **Universiti Kebangsaan Malaysia, Malaysia** Influence of SCOBY Fermentation on Antioxidant, Phytochemicals, and Skin–aging Enzyme Inhibition in Jackfruit (*Artocarpus heterophyllus*)
PS 1.12	**Prof Dr Norizan Ahmat** **Universiti Teknologi MARA, Malaysia** The Effect of 6–Benzylaminopurine on Regeneration of *Canarium odontophyllum*
22nd September 2021 12.30 – 14.00 Poster Session	**Poster Sessions 2** **(PS 2)** *Applied Microbiology* *Biorefinery and Bioenergy* *Environmental Biotechnology* Chairperson **Assoc Prof Dr Madihah Md Salleh** **Universiti Teknologi Malaysia, Malaysia** (Webex Link:1.1)
PS 2.1	**Allison D. Suleiman** **Universiti Putra Malaysia, Malaysia** Potential Applications Studies of Recombinant Serine Protease SpSKF4 as Detergent Additived and in X-ray Recovery
PS 2.2	**Muhamad Aidilfitri Mohamad Roslan** **University Putra Malaysia, Malaysia** Sustainable Agronomic Valorization of Unsulfured Molasses and Defatted Soybean Meal as an Optimized Formulation of Bio–organic Fertilizer Enriched with High Cell Density P–solubilizing Bacteria
PS 2.3	**Kayverne Santhanasamy** **Universiti Teknologi Malaysia, Malaysia** Microbial Community of Two Faecal Contaminants Sources: Sewage Treatment Plant versus Goat Farm
PS 2.4	**Prof Ts Dr Suraini Abd Aziz** **Universiti Putra Malaysia, Malaysia** Pineapple Biorefinery Toward Zero Wastes for Sustainability
PS 2.5	**Dr Mohd Helmi Sani** **Universiti Teknologi Malaysia, Malaysia** The Cultivation and Growth of *Chlorella sorokiniana* in Lab Scale Photobioreactor
Ps 2.6	**Assoc Prof Dr Juferi Idris** **Universiti Teknologi MARA, Malaysia** Production, Activation, and Application of Biochar from The Coconut Shell and Husk Biomass: A Review
PS 2.7	**Assoc Prof Dr Phang Lai Yee** **Universiti Putra Malaysia, Malaysia** Heavy Metal Uptake of *Jatropha curcas* Grown in Bauxite Mine Soil
PS 2.8	**Assoc Prof Dr Gideon Khoo** **Universiti Tunku Abdul Rahman, Malaysia** Fish Diversity in Rehabilitated Tin Mining Ponds of Kampar, Perak, Malaysia
PS 2.9	**Nor Faizah Jalani** **Malaysian Palm Oil Board, Malaysia** Potential of Cellulose–based Material for Palm Oil Mill Effluent Treatment
PS 2.10	**Nurul Afiqah Khairunnisa Azman** **Universiti Teknologi MARA, Malaysia** Screening for Biosurfactant Producing Indigenous Fungi Cultivated in Waste Cooking Oil as Sole Carbon Source

PS 2.11	**Besek Mariam Mohamad Jahis** **Universiti Putra Malaysia, Malaysia** Modification of Oil Palm Decanter Cake Through Fermentation to Produce Fish Dietary Feed Pellet for Patin (*Pangasianodon hypophthalmus*)
PS 2.12	**Kam Kar Yen** **Universiti Teknologi Malaysia, Malaysia** Synergistic Effect of Antibiotic Agents Against *Cupriavidus* Species
PS 2.13	**Nurul Azila Abdul Razak** **Universiti Teknologi MARA, Malaysia** Potential Cellulase Producing Facultative Anaerobic Bacteria Isolated from Black Soldier Fly (*Hermetia illucens*) Larvae
23rd September 2021 1000 – 1030 Poster Session	**Poster Sessions 3** **(PS 3)** *Bioprocess and Bioseparation* *Biopharmaceutical and Medical Biotechnology* *Nanobiotechnology, Biosensor and Biochips* Chairperson **Assoc Prof Dr Phang Lai Yee** **Universiti Putra Malaysia, Malaysia** (Webex Link 2.1)
PS 3.1	**Nur Sulihatimarsyila Abd. Wafti** **Malaysian Palm Oil Board, Malaysia** Clean Synthesis of Palm Polyol Esters as Lubricant Base Stock Using Immobilized Lipases
PS 3.2	**Kee Phei Er** **UCSI University**, **Malaysia** Application of Alcohol/Salt Aqueous Biphasic System for Purification of Microbial Protease
PS 3.3	**Dr Ainaa Abdul Kahar** **Malaysia Agricultural Research and Development Institute, Malaysia** Effect of Soaking Conditions (Temperature, Time and Water Level) on γ-Aminobutyric Acid (GABA) Content in Mung Bean
PS 3.4	**Hoo Wei Qi** **Universiti Teknologi Malaysia, Malaysia** Molecular Docking Study for Identification of The Potential Fatty Acid Synthase Inhibitors from *Acalypha indica* Ethanolic Extract
PS 3.5	**Hidayat Mohd Yusof** **Universiti Putra Malaysia, Malaysia** Antibacterial Potential of Biosynthesized Zinc Oxide Nanoparticles Against Poultry–associated Foodborne Pathogens: An *in vitro* Study

Young Researcher 3.1

Ajibola Olaide Olawunmi
Universiti Malaysia Sarawak, Malaysia

Production and Optimization of Laccase By *Marasmius cladohpyllus* UMAS MS8 Using Agro–industrial Waste as Substrate

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Abstract: Fungal laccases are preferred due to their high redox potentials and low substrate specificity. For large–scale enzyme applications, low enzyme yield and high cost of production has remained the challenge. Therefore, this research investigates the feasibility of utilizing various types of lignocellulosic agroindustrial waste such as sago "hampas", rice husk, and empty fruit bunch (EFB) as substrate in the production of laccase enzyme by endophytic fungus, *Marasmius cladohpyllus* UMAS MS8 under both solid–state fermentation (SSF) and submerged fermentation (SmF). The substrate that produces the highest laccase enzyme either under SSF or SMF will be selected for further optimization. The optimization parameters include the incubation period, effect of inducer (Remazol Brilliant Blue R (RBBR) and copper) and supplementation of different nitrogen sources. Among the three agroindustrial wastes tested as substrate, EFB under SmF was found to be the most ideal substrate and fermentation bioprocess to produce laccase enzyme as it gives rise to the highest laccase activity of 0.0919 U/g after 12 days of incubation as compared to other substrates either under SSF or SmF. However, both inducer RBBR and copper had no induction effect on the production of laccase enzyme. While the supplementation of nitrogen source, peptone better yield on laccase enzyme production by EFB after 12 days of incubation. In conclusion, these shows the potential of EFB as a cost–effective substrate for laccase enzyme production, offering an alternative use for this common and abundant agro–industrial by–product.

Keywords: Laccase; Lignocellulosic; Empty fruit bunch; *Marasmius cladophyllus*; Agroindustrial waste